

REMARKS

Status

Claims 1, 3-13, 15-18, 20, 21 and 23-28 are pending, among which claims 1 and 16 are independent claims. New claims 27 and 28 have been added.

Claim Rejections – 35 U.S.C. § 103

Claims 1, 3-5, 8, 10, 11, 16-18, 20, 21, 23 and 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hennen in view of Kydonieus et al. (US Patent No. 5,591,820) is respectfully traversed. Claims 6, 7, 9, 12, 13, 15 and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hennen in view of Kydonieus et al. and further in view of Shikinami et al

In response to the rejections noted above, both claims 1 and 16 now call "wherein a mole equivalent of isocyanate group of the polyisocyanate with respect to one mole equivalent of active hydrogen contained in hydroxyl group of the polyol that can react with the isocyanate group is larger than 1. This new limitation is not disclosed or taught by any of the cited references. The support for this new limitation is found in lines 25-27 on page 17 of the present application.

Claims 1 and 16 call for a pressure sensitive adhesive layer mainly formed of a specific polyurethane resin. The claims also call for a releasing agent layer formed mainly of a polyolefin resin. These resins allow the pressure sensitive adhesive layer and the releasing agent layer to have adequate adhesion between them and great resistance to separation of one from the other. Because of this property provided to the layers, the release sheet is reliably adhered to the pressure sensitive adhesive sheet, while being able to be sufficiently easily separated therefrom.

Kydonieus et al. (US Patent No. 5,591,820) discloses polyurethane resin which is produced with a trifunctional propylene oxide based polyol and an aliphatic diisocyanate which are reacted at **an NCO/OH ratio being within the range of 0.71 to 0.85**. Please note that the polyurethane resin of the present invention is obtained by reacting a polyol and a polyisocyanate at an NCO/OH ratio larger than 1. Thus, the polyurethane resin of Kydonieus is different from that of the present invention and cannot be equated thereto.

Further, Kydonieus is totally silent about a combination of the pressure sensitive adhesive layer formed mainly of polyurethane resin and the releasing agent layer formed mainly of polyolefin resin.

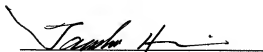
Furthermore, it is believed that Kydonieus' pressure sensitive adhesives cannot be used as a pressure sensitive adhesive in the pressure sensitive adhesive article of Hennen. Kydonieus' pressure sensitive adhesives exhibit a high degree of water absorption capability and/or high water vapor transmission capability. If Kydonieus' pressure sensitive adhesives were used as a pressure sensitive adhesive in the pressure sensitive adhesive article of Hennen, the resulting pressure sensitive adhesive layer would probably contain water at a high degree and would be spontaneously separated from the releasing agent layer.

In the Office Action, claims 24 and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hennen in view of Kydonieus et al. and further in view of Crandall (US Patent No. 5,645,938). As discussed above, claims 1 and 16 should be patentable over the references. So should claims 24 and 26 because they depend from claims 1 and 16. Nonetheless, Applicants hereby traverse the rejection specific to claims 24 and 26.

It is believed that there is no suggestion or motivation to combine Crandall with Hennen or Kydonieus. Crandall discloses a retroreflective article 10 including retroreflective elements 12. The retroreflective elements 12 are partially embedded in a binder layer 14 which comprises a polyester polyurethane polymer. Crandall also discloses that the polyester polyurethane polymer is a polyurethane-urea resin. In Crandall, however, the retroreflective article 10 is applied to a fabric layer 20 by means of sewing, a mechanical means. Since being sewed onto the fabric layer 20, the retroreflective article 10 is not meant to be separated from the fabric layer 20. Therefore, it is believed that the technical field in which Crandall resides is different from the technical field of the present invention and that Crandall cannot be combined with Hennen or Kydonieus.

Applicants respectfully submit that the claimed invention is neither anticipated by nor would have been obvious in view of Hennen, Kydonieus, Crandall and Shikinami, individually or in combination. Accordingly, withdrawal of this ground of rejection is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Tadashi Horie', is written over a horizontal line.

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